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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/501,095 | 07/09/2004 | Luc Dartois | Q82303 | 3057 |

23373 7590 02/08/2006
SUGHRUE MION, PLLC
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WASHINGTON, DC 20037

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| EXAMINER |
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NGUYEN, TUAN HOANG

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| ART UNIT | PAPER NUMBER |
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2643

DATE MAILED: 02/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/501,095 | DARTOIS, LUC | |
| | Examiner | Art Unit | |
| | Tuan H. Nguyen | 2643 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 07/09/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 07/09/2004 has been considered by Examiner and made of record in the application file.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-2 and 4-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Cimini, Jr. et al. (US PAT. 6,005,876 hereinafter, "Cimini").

Regarding claim 1, Cimini discloses a unit for sending from a base station to terminals in a telecommunications system, unit comprising at least two sending channels or groups of sending channels adapted to send on a plurality of adjacent carrier frequencies, channels being able to send in spatial diversity mode so that the same information may be sent by the channels or groups of channels (read on "two or more antennas") on the same carrier frequency or frequencies (Fig. 3 col. 2 lines 48-56, the same tones are carry over the same frequencies and transmitted simultaneously by two or more antennas), which unit is characterized in that the channels or groups of channels use at least one common carrier frequency (read on "the same signals") for sending in spatial diversity mode and at least one of the channels or groups of channels (read on "multiple transmitters") (col. 4 line 64 through col. 5 line 9) comprises at least one different frequency (read on "adverse to the tone") for sending without spatial diversity or with a lower degree of spatial diversity (read on "transmitted with a difference set of tone assignment") (col. 5 lines 10-27).

Regarding claim 2, Cimini further discloses characterized in that each of the channels or groups of channels uses at least one carrier frequency for sending without spatial diversity or with a lower degree of spatial diversity (col. 4 line 64 through col. 5 line 9).

Regarding claim 4, Cimini further discloses characterized in that it comprises means for modifying the sending frequency during a call or during a standby period and

for each of the terminals in the area covered by the station, from a first frequency with spatial diversity to a second frequency without spatial diversity or with a lower degree of spatial diversity than for the first frequency, and vice-versa (col. 4 line 64 through col. 5 line 9).

Regarding claim 5, Cimini further discloses characterized in that changing from a first frequency with spatial diversity to a second frequency without spatial diversity or with a lower degree of spatial diversity (col. 4 line 64 through col. 5 line 9), or vice versa, is effected as a function of at least one of the following parameters: the bit rate of the call from the base station to the terminal (col. 7 lines 6-36).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 3 and 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cimini, Jr. et al. (US PAT. 6,005,876 hereinafter, "Cimini") in view of Kornfeld et al. (U.S PAT. 5,722,053 hereinafter, "Kornfeld").

Regarding claim 3, Cimini discloses a unit for sending from a base station to terminals in a telecommunications system, unit comprising at least two sending channels or groups of sending channels adapted to send on a plurality of adjacent carrier frequencies, channels being able to send in spatial diversity mode so that the same information may be sent by the channels or groups of channels on the same carrier frequency or frequencies, which unit is characterized in that the channels or groups of channels use at least one common carrier frequency for sending in spatial diversity mode and at least one of the channels or groups of channels comprises at least one different frequency for sending without spatial diversity or with a lower degree of spatial diversity. Cimini differs from the claimed invention in not specifically teaching for characterized in that at least one of the sending channels comprises a power amplifier able to send on a plurality of carrier frequencies and the active frequencies of which may be selected by programming them. However, Kornfeld teaches for characterized in that at least one of the sending channels comprises a power amplifier able to send on a plurality of carrier frequencies and the active frequencies of which may be selected by programming them (col. 3 lines 48-58). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Cimini for characterized in that at least one of the sending channels comprises a power amplifier able to send on a plurality of carrier frequencies and the active frequencies of which may be selected by programming them, as per teaching of

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Kornfeld, because it provides an operation on multiple frequencies simultaneously on either transmit or receive.

Regarding claim 6, Kornfeld further discloses characterized in that it comprises a device for assigning radio resources adapted to modify the sending frequency used for each call to a terminal (col. 4 lines 57-63).

Regarding claim 7, Kornfeld further discloses characterized in that it comprises two groups of channels and each group comprises at least one frequency used with spatial diversity only for that group and at least one other frequency used with spatial diversity for both groups (col. 4 line 64 through col. 5 line 3).

7. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cimini, Jr. et al. (US PAT. 6,005,876 hereinafter, "Cimini") in view of Patel et al. (U.S PAT. 6,865,185 hereinafter, "Patel").

Regarding claim 8, Cimini discloses a unit for sending from a base station to terminals in a telecommunications system, unit comprising at least two sending channels or groups of sending channels adapted to send on a plurality of adjacent carrier frequencies, channels being able to send in spatial diversity mode so that the same information may be sent by the channels or groups of channels on the same carrier frequency or frequencies, which unit is characterized in that the channels or groups of channels use at least one common carrier frequency for sending in spatial

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diversity mode and at least one of the channels or groups of channels comprises at least one different frequency for sending without spatial diversity or with a lower degree of spatial diversity. Cimini differs from the claimed invention in not specifically teaching for a telecommunications system conforming to the UMTS, CDMA 2000, or DOCOMO standard. However, Patel teaches for a telecommunications system conforming to the UMTS, CDMA 2000, or DOCOMO standard (col. 5 lines 55-64). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Cimini for a telecommunications system conforming to the UMTS, CDMA 2000, or DOCOMO standard, as per teaching of Patel, because it enhances for queuing traffic in a wireless network includes receiving a stream of packets for transmission in the wireless network.

Regarding claim 9, Patel further discloses a telecommunications system able to reassign frequencies during a call and/or in a standby mode of the terminals (col. 10 line 54 through col. 11 line 5).

Conclusion

8. Any response to this action should be mailed to:

Mail Stop_____ (Explanation, e.g., Amendment or After-final, etc.)

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Facsimile responses should be faxed to:

(571) 273-8300

Hand-delivered responses should be brought to:

Customer Service Window

Randolph Building

401 Dulany Street

Alexandria, VA 22313

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan H. Nguyen whose telephone number is (571) 272-8329. The examiner can normally be reached on 8:00Am - 5:00Pm.

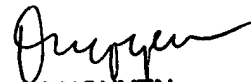
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on (571) 272-7499. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tuan Nguyen
Examiner
Art Unit 2643



DUC NGUYEN
PRIMARY EXAMINER